abcam

ab318195

Anti-Cathelicidin/CLP antibody [EPR28791-612]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR28791-612
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for rat WB.
Concentration	0.542 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/500

Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/5000
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse

Dilution info	1/5000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/5000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information Camp

Function	Antimicrobial protein that is an integral component of the innate immune system (By similarity). Binds to bacterial lipopolysaccharides (LPS) (By similarity). Cathelin-related antimicrobial peptide. Acts via neutrophil N-formyl peptide receptors to enhance the release of CXCL2.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Cathelicidin also known as LL-37 peptide is an antimicrobial peptide with a mass of around 18 kDa. It plays an important role in the innate immune system by disrupting microbial membranes. LL-37 is expressed in various tissues including skin mucosal surfaces and certain immune cells. These peptides protect the host from infection by directly killing bacteria viruses and fungi and by modulating immune responses.
Biological function summary	Peptides like Cathelicidin are essential for host defense mechanisms contributing to cell signaling and pathogen clearance. LL-37 does not function within a complex but acts independently to influence immune cell chemotaxis. It promotes wound healing angiogenesis and tissue repair thereby ensuring rapid response to injury or infection.
Pathways	Cathelicidin interacts within inflammatory and wound healing pathways. It is involved in the NF-kB signaling pathway which regulates immune response and is linked to TLR (Toll-like receptor) pathways impacting cytokine production and further immune modulation. Proteins such as defensins share similar pathways indicating their collective influence in antimicrobial defense and tissue repair.
Associated diseases and disorders	Peptides like Cathelicidin are associated with conditions like psoriasis and atopic dermatitis. Overexpression or dysregulation of LL-37 can exacerbate inflammation in these autoimmune skin disorders. Related to these diseases proteins such as interleukins (IL-1 and IL-6) are often co-expressed or influenced by Cathelicidin levels indicating their intertwined role in skin homeostasis and immune responses.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

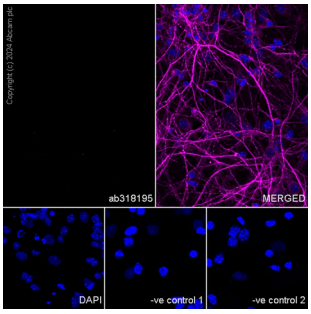
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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14 product images



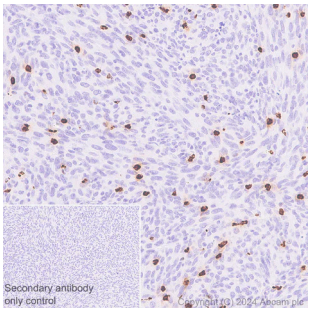
Immunocytochemistry/ Immunofluorescence - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neuron cells labelling Cathelicidin/CLP with ab318195 at 1/500 (1.038 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Negative control: Confocal image showing negative staining in mouse primary neuron (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab11267 Anti-MAP2 mouse monoclonal antibody was used to counterstain tubulin at 1/500 4ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

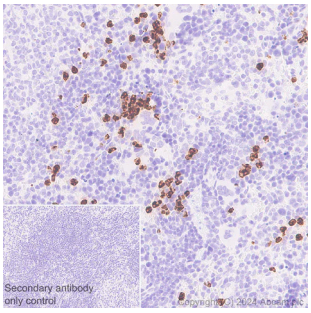
Immunohistochemical analysis of paraffin-embedded Mouse pancreatic tumor tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on granulocytes in mouse pancreatic tumor. The section was incubated with ab318195 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

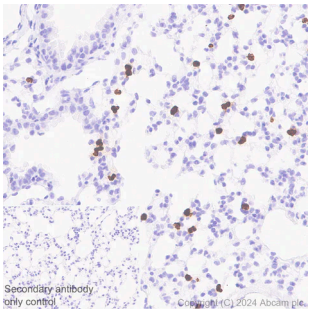
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse spleen. The section was incubated with ab318195 for 30 mins at room temperature.
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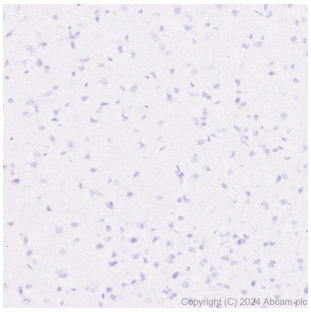
Immunohistochemical analysis of paraffin-embedded Mouse lung tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on granulocytes in mouse lung. The section was incubated with ab318195 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Cathelicidin/CLP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-Cathelicidin/CLP antibody

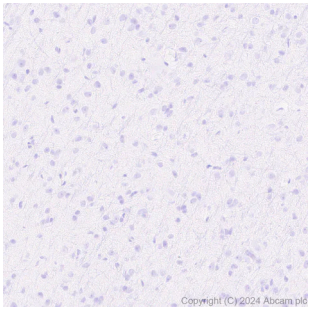
Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on mouse cerebrum. The section was incubated with ab318195 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Cathelicidin/CLP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat cerebrum using rabbit Anti-Cathelicidin/CLP antibody

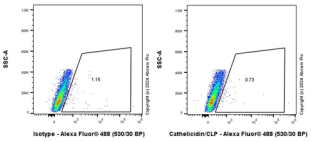
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on rat cerebrum. The section was incubated with ab318195 for 30 mins at room temperature.
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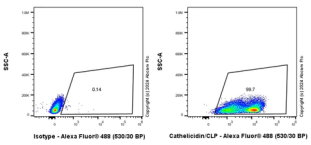
Flow Cytometry (Intracellular) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Cathelicidin/CLP Flow Cytometry (Intracellular) staining of mouse primary neuron using rabbit Anti-Cathelicidin/CLP antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized mouse primary neuron cells labelling Cathelicidin/CLP with ab318195 at 1/5000 dilution (0.01 ug)/Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

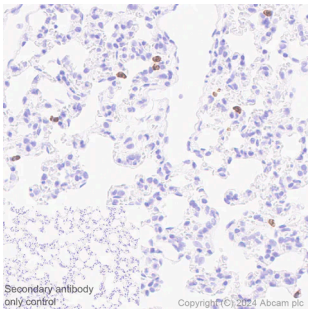
Negative control: mouse primary neuron



Flow Cytometry (Intracellular) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized mouse bone marrow cells labelling Cathelicidin/CLP with ab318195 at 1/5000 dilution (0.01 ug)/Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

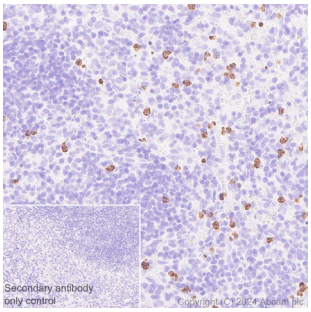
Immunohistochemical analysis of paraffin-embedded Rat lung tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on granulocytes in rat lung. The section was incubated with ab318195 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

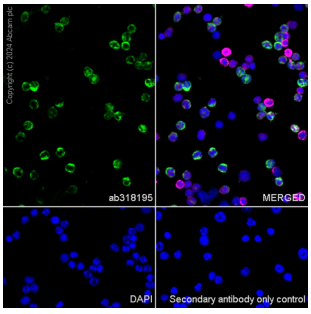
Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling Cathelicidin/CLP with ab318195 at 1/5000 (0.104 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on rat spleen. The section was incubated with ab318195 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Incubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



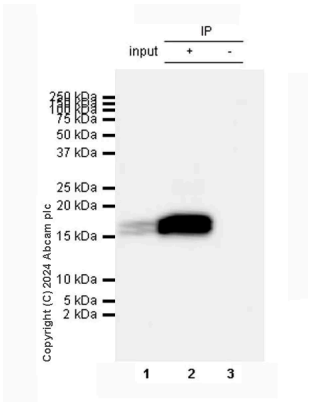
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Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Mouse bone marrow cells labelling Cathelicidin/CLP with ab318195 at 1/500 (1.038 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in subsets of mouse bone marrow (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunoprecipitation - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Cathelicidin/CLP was immunoprecipitated from 0.35 mg Mouse spleen tissue lysate with ab318195 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab318195 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: Mouse spleen tissue lysate
Lane 2: ab318195 IP in Mouse spleen tissue lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab318195 in Mouse spleen tissue

The band around 18 kDa is the immature form and 16 kDa is the cathelin-like domain processed from the immature full-length protein (PMID: 12454100, 34125490)

Lane 2:
Immunoprecipitation - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195) at 1/30 dilution

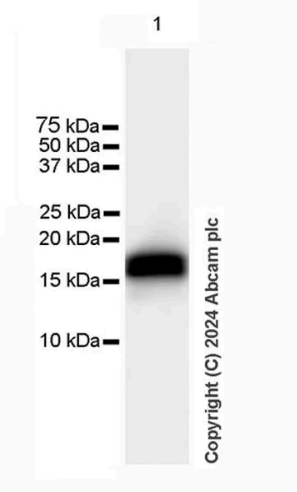
Lane 2:
Immunoprecipitation - Anti-Cathelicidin/CLP antibody [EPR28791-612] - BSA and Azide free (ab318196) at 1/30 dilution

All lanes:
Mouse spleen tissue lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 10s



Western blot - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Cathelicidin/CLP Western blot staining of Mouse bone marrow tissue lysate using rabbit Anti-Cathelicidin/CLP antibody

The band around 18 kDa is the immature form and 16 kDa is the cathelin-like domain processed from the immature full-length protein (PMID: 12454100, 34125490)

All lanes:
Western blot - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195) at 1/1000 dilution

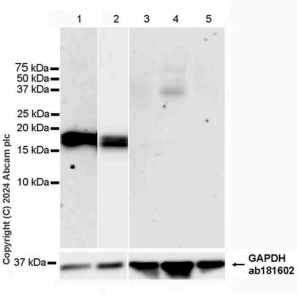
All lanes:
Mouse bone marrow tissue lysate at 50 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 18 kDa, 16 kDa

Exposure time: 1s



Western blot - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195)

Cathelicidin/CLP Western blot staining using rabbit Anti-Cathelicidin/CLP antibody

Negative control: brain, skeletal mucle (PMID: 9148921).

The band around 18 kDa is the immature form and 16 kDa is the cathelin-like domain processed from the immature full-length protein (PMID: 12454100, 34125490)

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lane 2: 3 seconds, lanes 1, 3-5: 180 seconds

All lanes:
Western blot - Anti-Cathelicidin/CLP antibody [EPR28791-612] (ab318195) at 1/1000 dilution

Lane 1:
Mouse lung tissue lysate at 50 µg

Lane 2:
Mouse spleen tissue lysate at 50 µg

Lane 3:
Mouse cerebral cortex tissue lysate at 50 µg

Lane 4:
Mouse skeletal muscle tissue lysate at 50 µg

Lane 5:
Mouse brain tissue lysate at 50 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 18 kDa, 16 kDa, 36 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.